

REMARKS

The Office Action dated November 28, 2006, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-21 are pending, of which claims 1, 11, and 21 are independent. By this Response, claims 11 and 15 have been amended to correct minor typographical errors without adding new matter.

Claims 1-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lin et al. (U.S. Patent Application Publication No. 2002/0133619 – hereinafter Lin) in view of Bremer et al. (U.S. Patent No. 6,553,002 – hereinafter Bremer). Applicant respectfully traverses the rejection for the reasons that Lin and Bremer, in combination or separately, fail to teach, disclose, or suggest all of the elements of the presently pending claims.

Prior to traversing the obviousness rejection in detail, Applicant respectfully rebuts the Examiner's Response to Arguments on page 2 of the Final Office Action as follows.

The Office Action contended that Applicant's arguments filed on September 12, 2006 were not persuasive. Specifically, in response to Applicant's argument directed to Lin, the Office Action cited *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955) and contended that changes in size or range are generally not given patentable weight or would have been obvious improvements. That is, the Examiner cited *In re Rose* in

response to Applicant's previously submitted arguments that Lin does not disclose or suggest a rule that applies to a range of key values and fails to disclose searching a plurality of objects defining key ranges to identify an object that defines a smallest range of key values that includes a provided key. In response, Applicant respectfully submits that the citation of *In re Rose* is improper at least for the reasons provided below.

In response to the Office Action's assertion that Applicant's claimed ranges are not given patentable weight, and to the improper application of *In re Rose*, Applicant respectfully directs the Examiner's attention to MPEP 2144.04. According to MPEP 2144.04, *In re Rose* is discussed as a legal precedent in supporting a standing that size/proportion is not sufficient in distinguishing over prior art. More specifically, the MPEP provides a synopsis of *In re Rose* as follows:

Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.

Having reviewed MPEP 2144.04 and *In re Rose*, Applicant respectfully asserts that the facts in *In re Rose* does not in any way relate to "ranges", let alone "ranges of key values", as recited in the Applicant's claimed invention. Rather, as clearly shown in *In re Rose*, it is the claimed "size" of a lumber package that was at issue. There is no discussion of "range" as asserted by the Office Action. Therefore, *In re Rose* is improperly cited because the cited case does not address "ranges" and because the

presently claimed features bear no relation to a physical size and weight of a lumber package that the CCPA has found insufficient to patentably distinguish over prior art.

For the Examiner's convenience, Applicant submits herewith a copy of the decision of *In re Rose* by CCPA to the Examiner for reference. Further, Applicant respectfully asserts that, by not giving proper patentable weight to the key range, the Office Action has failed to address each and every claimed feature in the pending obviousness rejection.

Prior to discussing the applied prior art references, Applicant would like to summarize the present invention as follows.

Independent claim 1, upon which claims 1-10 are dependent, is directed to a method for associating at least one rule with a key. The method includes arranging a plurality of objects in a table based on an ordering of information associated with each object wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting object entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values of the key range of the determined object.

Independent claim 11, upon which claims 12-20 are dependent, is directed to a network device for associating at least one rule with a key. The device includes: a memory for storing instructions; a processor for enabling actions based on the instructions, including: arranging a plurality of objects in a table based on an ordering of information associated with each object, wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values of the key range of the determined object.

Independent claim 21, which has no dependent claim, is directed to a network device for associating at least one rule with a key. The network device includes: a means for arranging a plurality of objects in a table based on an ordering of information associated with each object, wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; a means for employing a search method to determine a starting object entry in the table if the key is provided; a means for employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key if the

key range of the object at the starting entry in the table is unequal to the provided key; and a means for enabling processing of the provided key based on at least one rule associated with the determined object, wherein the at least one rule applies to all key values of the key range of the determined object.

With respect to the Lin reference, Lin discloses searching a rules table using a binary search to find a rule that matches a particular combination of data and a filter mask. In particular, Lin discloses that a mask from a mask table is multiplied with a data value, and the resulting product is sequentially compared with rules from a rules table until a matching rule is found or available rules are exhausted, whichever comes first. Thereafter, a next mask is selected to provide a new product, and the process is repeated. Thus, Lin matches a particular rule with a particular product of data and mask. Further, Lin discloses that the pointer table can specify a range of rules to be compared with a particular product.

However, Applicant respectfully asserts that Lin fails to teach, disclose, or suggest searching a plurality of objects defining key ranges to identify an object that defines a smallest range that includes a provided key. Accordingly, Lin fails to teach, disclose, or suggest at least “arranging a plurality of objects in a table based on an ordering of information associated with each object wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting object entry in the table is

unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values of the key range of the determined object”, as recited in claim 1, and similar features recited in independent claims 11 and 21.

Applicants notes that the Office Action admitted that Lin fails to disclose “*if the key range of the starting object entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key*”. To cure this deficiency of Lin, Bremer was cited. In response, Applicant respectfully traverses the combination of Bremer with Lin for the reason provided below.

With respect to Bremer, the reference is directed to an apparatus and method for routing data packets through a communication network. Bremer appears to utilize a binary search tree to decrease the time to search a rule table and to store the decision bit for each node in its parent node rather than in the node itself. Bremer, however, does not appear to teach, disclose or suggest objects defining a key range or “if the key range of the starting object entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key”, as recited in Applicant’s present claims. Hence,

Bremer does not cure the above-discussed deficiency of Lin as admitted by the Examiner or the deficiencies of Lin as pointed out by Applicant above.

Moreover, the Office Action cited column 13, lines 12-22 of Bremer as disclosing Applicant's claimed feature "*if the key range of the starting object entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key*". However, upon reviewing the cited portion of Bremer, no support can be found for the Office Action's assertion. Instead, column 13, lines 12-22 of Bremer appears to be directed to a comparison between a conventional Patricia search tree and Bremer's search method wherein in node may have an attached route which stores alternative routes so that the route stack stores each of these other routes during the downwards traversal of the search tree so that an alternative route may be located without having to traverse any nodes of the search tree again which reduces the time to find an alternate route.

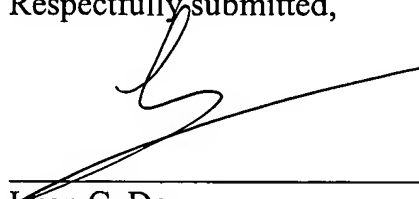
In view of the above, Applicant respectfully submits that each of the claims 1-21 recites subject matter which neither disclosed nor suggested in Lin and Bremer, in combination or separately. It is therefore respectfully requested that the pending §103(a) rejection be withdrawn, and this application pass to issue with the allowance of pending claims 1-21.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Luan C. Do', written over a horizontal line.

Luan C. Do
Registration No. 38,434

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

LCD/kzw

Enclosures: In Re Rose reference

LEXSEE 220 F.2D 459



Cited

As of: Dec 19, 2006

IN RE ROSE

No. 6080

United States Court of Customs and Patent Appeals

42 C.C.P.A. 817; 220 F.2d 459; 1955 CCPA LEXIS 223; 105 U.S.P.Q. (BNA) 237

Oral argument January 3, 1955

March 22, 1955

PRIOR HISTORY: [*1]**

APPEAL from Patent Office, Serial No. 190,625

DISPOSITION:

Affirmed.

COUNSEL:

J. Preston Swecker (*William L. Mathis* of counsel)
for appellant.

E. L. Reynolds (*H. S. Miller* of counsel) for the
Commissioner of Patents.

OPINION BY:

JOHNSON

OPINION: [460]**

[*818] Before GARRETT, Chief Judge, and
O'CONNELL, JOHNSON, WORLEY, and COLE,
Associate Judges

JOHNSON, Judge, delivered the opinion of the
court:

This is an appeal from the decision of the Board of
Appeals of the United States Patent Office affirming the
holding of the Primary Examiner rejecting as
unpatentable claims 29 to 33, the only remaining claims
in appellant's application for a patent on a "Package of,
Apparatus for Packaging and Method of Handling and
Storing Lumber."

The appealed claims relate to a lumber package
which is composed of individually banded bundles of
lumber which vary in length. Each individual bundle of
lumber consists of layers of strips of lumber which are
approximately the same length. Each layer consists of a
plurality of strips of lumber. These individually banded
bundles, which vary in length, are arranged in superposed
relationship so that the longer bundles form the base of a
stacked arrangement [***2] of bundles, and the shorter
bundles rest on the longer bundles and on each other.
The bundles are arranged in layers of uniform width and
depth with a plurality of bundles in each layer. The
topmost bundles of the stacked arrangement may be long
bundles or short bundles. The stack of bundles thus
formed is secured with a plurality of bands, which extend

transversely to the length dimension of the bundles. These bands bind said bundles together and form a package. Some of the claims recite the presence of runners beneath the package. These runners extend transversely to the length of the package and are held to the package by the aforementioned bands which bind the package. The runners serve the purpose of supporting the package in elevated position above the surface upon which it rests.

Claims 29, 30, and 31, which are representative of the appealed claims, read as follows:

29. As an article of manufacture, a lumber package comprising a plurality of bundles, each bundle including a plurality of strips of lumber, a band encircling the strips of each bundle, the plurality of bundles being arranged in superposed relation, and a plurality of bands encircling the plurality [***3] of bundles [*819] and spaced apart lengthwise of the strips, at least one of the bundles at the bottom portion of the package and another of the bundles adjacent the top of the package each having the strips thereof extending throughout the length of the package between a plurality of the last-mentioned bands, and at least some of the bundles between said long-strip bundles being spaced apart lengthwise of the package within [**461] the respective bands thereof and comprising short strips appreciably shorter than said long strips.

30. As an article of manufacture, a lumber package comprising a plurality of bundles of uniform width and depth, each bundle including a plurality of layers of strips of lumber, each layer comprising a plurality of strips lying said by side, a band encircling [sic] the strips of each bundle, the plurality of bundles being arranged in superposed relation, and a plurality of bands encircling the plurality of bundles and spaced apart lengthwise of the strips, at least one of the bundles at the bottom portion of the package and another of the bundles adjacent the top of the package each having the strips thereof extending throughout the length [***4] of the package between a plurality of the lastmentioned bands, and runners beneath the package extending transversely thereof between the last-mentioned bands and the lowermost bundles supporting the latter in elevated position.

31. As an article of manufacture, a lumber package comprising bundles, each bundle including a plurality of layers of strips of lumber, each layer comprising a plurality of strips lying side by side, a band encircling the

strips of each bundle, said bundles being arranged in a multiplicity of layers with more than two bundles in each layer lying side-by-side in edge-to-edge relation, and each of a plurality of the layers having the bundles thereof spaced apart lengthwise thereof in end-to-end relation, and a plurality of bands encircling said bundles and spaced apart lengthwise of the strips, a plurality of the bundles at the bottom portion of the package each having the strips thereof extending throughout the length of the package between a plurality of the last-mentioned bands, and runners beneath the package extending transversely thereof between the last-mentioned bands and the lowermost bundles supporting the latter in elevated positions, the strips [***5] of each bundle being of appreciable width and thickness and each bundle being of appreciable length cooperating in the multiplicity of bundles to provide a composite package of appreciable size and weight requiring handling by a lift truck.

The references relied on by the Patent Office are:

Denison, 1,600,720, September 21, 1926.

Wheless, 1,766,317, June 24, 1930.

Chambers, 2,012,220, August 20, 1935.

Owens, 2,287,056, June 23, 1942.

Ott, 2,328,356, August 31, 1943.

The Denison patent discloses a lumber package which consists of layers of wood which are bound transversely to their length by bands formed of metal. Each layer consists of a plurality of strips of lumber. The following portion of the Denison specification is deemed to adequately describe the structure of the Denison lumber package:

* * * One or more of the lower layers and of the upper layers are preferably formed of pieces which are of the full length of the package. The intermediate layers are made of pieces of full length or of any length which will produce the [*820] full length of the package, pieces being selected which will, when laid in position end to end, make the full length or [***6] eight feet. Thus two pieces or several pieces may be placed end to end to make the full length. This is the preferred way. But spaces may be left between the ends of the short pieces. That will require more layers to give the package the chosen number of linear feet of boards.

The Wheless patent discloses a package for knocked down window screen frames. Some of the knocked down pieces of a window screen frame are of different length from other pieces. All of the pieces having one length are wrapped in [**462] one bundle. The pieces having another length are wrapped in another bundle. These two bundles are then encircled by strips of paper which hold the individual packages together.

The Chambers patent discloses a method for storing and dispensing lumber. The portion of this patent which is pertinent to the present case shows layers of strips of lumber of equal length fastened by cleats or binder bands to form a plurality of bundles. Each layer consists of a plurality of strips. The bundles are stacked on top of each other. A plurality of bundles in stacked relationship are capable of being handled by a crane.

The Owens patent relates to the packaging of steel [***7] sheet material. The portion of this patent which is pertinent to the patent application before us discloses sheets of metal of equal length stacked on a plurality of spaced blocks which are positioned with their longitudinal axes extending transversely to the length of the sheets. Steel bands encircle both the blocks and sheets to form a bundle. A plurality of bundles formed in this manner are stacked on top of each other and fastened together by means of two bands to form a package. One of the last mentioned bands encircles the package in a transverse direction, and the other in a longitudinal direction.

The Ott patent also discloses a package of strip metal. The package consists of a plurality of individually bound bundles of sheets of equal length fastened together by means of steel bands wrapped transversely around the plurality of individually bound bundles of sheets to form a package. Interposed between the aforementioned steel bands and said plurality of bundles, on the upper and lower surfaces of the package, are a number of wooden cleats or blocks which extend transversely of said bundles.

The application involved in this appeal has been before the Board of Appeals [***8] of the Patent Office twice. In the first appeal, the Board of Appeals rendered a decision on February 27, 1953, in which it affirmed the decision of the Primary Examiner in which he rejected claims 18 through 30, 32, and 33. Claim 31, prior to the decision of the Board of Appeals, had been allowed by the Primary Examiner in a different form from which it

appears above. However, the Board [*821] of Appeals rejected claim 31 under the provisions of Patent Office Rule 196 (b) n1 on the ground that it did not patentably differentiate from another of the rejected claims. The application was then remanded to the Primary Examiner. Claim 31 was amended by appellant, placed in the condition in which it appears above, and was subsequently rejected by the Primary Examiner. The appellant then appealed to the Board of Appeals from the rejection of claim 31, as amended, and also requested that the board reconsider its previous decision relative to the affirmance of the examiner's rejection of claims 29, 30, 32, and 33. The Board of Appeals rendered its second decision on July 21, 1953, in which it affirmed the Primary [**463] Examiner's rejection of claim 31. The board also reviewedd [***9] its previous decision which pertained to claims 29, 30, 32, and 33, but stated that it could find no reasons for changing or modifying its previous decision. Thus claims 29 through 33 are before us because of an adverse decision on patentability by the Board of Appeals.

n1 Rule 196.

(b) Should the Board of Appeals have knowledge of any grounds not involved in the appeal for rejecting any claim, it may include in its decision a statement to that effect with its reasons for so holding, which statement shall constitute a rejection of the claims. The appellant may submit an appropriate amendment of the claims so rejected or a showing of facts, or both, and have the matter reconsidered by the primary examiner. The statement shall be binding upon the primary examiner unless an amendment or showing of facts not previously of record be made which, in the opinion of the primary examiner, avoids the additional ground for rejection stated in the decision. The applicant may waive such reconsideration before the primary examiner and have the case reconsidered by the Board of Appeals upon the same record before them. Where request for such reconsideration is made the Board of Appeals shall, if necessary, render a new decision which shall include all grounds upon which a patent is refused. The applicant may waive reconsideration by the Board of Appeals and treat the decision, including the added grounds for rejection given by the Board of

Appeals, as a final decision in the case.
[***10]

The Board of Appeals affirmed the examiner's rejections of claim 31 on (1) Denison in view of Wheless, Ott, Chambers, and Owens, and (2) on Denison in view of Wheless and Ott. The substance of the second of the above rejections is best stated by quoting directly from the board's decision as follows:

* * * It would not be invention to separate the random length lumber strips of Denison into bundles of approximately equal length with each bundle tied separately and all the bundles tied together in a package after the teaching of Wheless. Nor would it be invention to provide transverse runners on the package of Denison after the teaching of Ott. It is noted that Denison teaches that 'one or more' of the upper and lower layers may be formed of pieces which are the full length of the package (see specification, page 1, lines 87-99) and it would not be invention to form these full length layers as separate bundles, if desired. The number of strips in a bundle, the number of bundles in a layer, the number of layers of bundles and the relative dimensions of the strips, the bundles and the package are all deemed matters of choice involving differences in degree and/or size and [are] [***11] not patentable distinctions, * * *

[*822] Appellant argues that this claim recites that the package is of appreciable size and weight so as to require handling by a lift truck whereas Wheless and Denison packages can be lifted by hand. We do not feel that this limitation is [1] patentably significant since it at most relates to the size of the article under consideration which is not ordinarily a matter of invention. In re Yount, 36 C.C.P.A. (Patents) 775, 171 F.(2d) 317, 80 USPQ 141. Notwithstanding appellant's arguments, we feel that this [2] second rejection is sound. Since the second rejection must be sustained, we deem it unnecessary to discuss the first of said above rejections. In re Hall, 41 C.C.P.A. (Patents) 759, 208 F.(2d) 370, 100 USPQ 46.

The examiner's rejection of claim 29, which was affirmed by the board, is that it stands rejected on Denison in view of Wheless. Since the reasoning behind this rejection is similar to the reasoning of the rejection of claim 31, as stated above, we do not feel that it is necessary to repeat the rejection here. We agree with the board's holding.

The examiner rejected claims 30, 32, and 33 on

Chambers in view of Owens [***12] and On Owens in view of Chambers with the addition of Ott; the board affirmed this rejection. These three claims are substantially similar in scope, and claim 30, supra, is considered representative of this group. The substance of the rejection is that it would not be invention to join a plurality of the bundles of Chambers into a package by means of one or more transverse tie bands, after the teaching of Owens, and it would not be invention to omit the intermediate runners of Owens or Chambers and their function, if desired, and to secure the bottom runners separately to the package by means of the package tie bands after the teaching of Ott. It is to be noted that the Chambers and Owens patents disclose packages which contain bundles of strips of material of equal length, as described above. Appellant states that his package consists of bundles of shorter and longer length. However, it can readily be seen that claim 30 (which is representative of the group consisting of claims 30, 32, and 33) does not recite that some of the bundles are of shorter length than other bundles. We feel that these claims are not patentable [3] over the applied references since the particular feature [***13] upon which an applicant predicates patentability must not [***464] only be disclosed in the specifications but also brought out or recited in the claims. In re Richards, 38 C.C.P.A. (Patents) 900, 187 F.(2d), 643, 89 USPQ 64. It is to be noted further that claim 30 recites "a lumber package comprising a plurality of bundles of uniform width and depth, each bundle including a plurality of layers of strips of lumber, each layer comprising a plurality of strips lying side by side." The Chambers patent discloses this structure. [*823] We are therefore in agreement with the Board of Appeals on their holding relative to claims 30, 32, and 33.

Appellant makes many arguments that his claims are patentable. These arguments in essence are:

(1) The patent application discloses a novel concept which is not taught by the prior art; therefore, the claims should be deemed patentable notwithstanding the simplicity of the structure.

(2) Since there has been commercial success, trade adoption, and imitation of the instant lumber package, as evidenced by an affidavit submitted during the prosecution of the application before the Patent Office, the claims should not be rejected in the [***14] absence of clear proof that they are anticipated or clearly invalid.

42 C.C.P.A. 817, *823; 220 F.2d 459, **464;
1955 CCPA LEXIS 223, ***14; 105 U.S.P.Q. (BNA) 237

[4] Relative to appellant's first argument, we do not feel that a novel concept, per se, is conclusive of invention. It is quite evident that everything which is novel must be based on a novel concept. However, it is well settled that everything which is novel is not patentable, because, in addition to being novel and useful, the device sought to be patented must involve invention. In re Corbett, 31 C.C.P.A. (Patents) 1077, 142 F.(2d) 78, 61 USPQ 361. In re Green, 25 C.C.P.A. (Patents) 1143, 97 F.(2d) 130, 37 USPQ 690. Thus appellant's argument that he has presented a novel concept is not persuasive as to the patentability of his claims since, in our opinion, [5] there is no invention involved in combining, in appellant's structure, the various known elements and features of the cited prior art in such a manner that these elements and features perform in combination the same function as set forth in said prior art without giving an unobvious and unexpected result. In re Lindberg, 39 C.C.P.A. (Patents) 866, 194 F.(2d) 732, 93 USPQ 23.

[6] We now come to appellant's second argument, which relates to the [***15] commercial success of his lumber package, as evidenced by the aforementioned affidavit. It is well settled that where there is a doubt as to whether invention exists in an item sought to be patented that extensive use and commercial success may be considered to resolve the question of patentability in favor of the applicant for a patent. In re Hock, 35

C.C.P.A. (Patents) 1235, 168 F.(2d) 540, 78 USPQ 75. However, it is equally well settled that evidence of commercial success may be controlling only where the issue of patentability is otherwise doubtful. In re Renstrom, 36 C.C.P.A. (Patents) 1020, 174 F.(2d) 140, 81 USPQ 390. In re Gillette, 36 C.C.P.A. (Patents) 1172, 175 F.(2d) 787, 82 USPQ 196. In the present case, we feel that there is no doubt that invention is lacking. Therefore, we feel that the arguments relative to commercial success are not persuasive toward allowance of the claims.

[*824] It is to be noted in this respect, however, that appellant points out that there was a conflict of opinion in the Patent Office relative to the allowability of claim 31, as discussed above. It would seem that any doubt as to the allowability of claim 31 was solely on the part [***16] of the examiner, but this doubt was resolved overwhelmingly against patentability by the Board of Appeals. We have no doubt that claim 31 does not contain patentable subject matter, and we therefore consider the commercial success of the lumber package under consideration to be immaterial with respect to patentability.

For reasons hereinbefore stated, the decision of the Board of Appeals is affirmed.